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of: albumin, immunoglobulin A, immunoglobulin G and mixtures of one or more immunoglobulins.

10. The method according to claim 1, wherein
said biological material is mammalian tissue or a component of
5 mammalian tissue.

11. The method according to claim 1, wherein said biological material is a recombinantly-produced biological material.

12. The method according to claim 1, wherein
10 said biological material is a transgenic biological material.

13. The method according to claim 1, wherein said biological material is a food or a botanical product.

14. The method according to claim 1, wherein said ionizing radiation is gamma radiation.

15 15. The method according to claim 1, wherein
said biological material is a carbohydrate or polysaccharide.

16. The method according to claim 1, wherein said biological material is selected from the group consisting of chitin, chitosan, NOCC-chitosan and derivatives thereof.

20 17. The method according to claim 1, wherein
said biological material is a product of cellular metabolism.

18. The method according to claim 1, wherein said effective rate is not more than about 3.0 kGy/hour.

19 . The method according to claim 1, wherein
25 said effective rate is more than about 3.0 kGy/hour.

20. The method according to claim 1, wherein said effective rate is not more than about 6.0 kGy/hour.

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21. The method according to claim 1, wherein said effective rate is not more than about 18.0 kGy/hour.

22. The method according to claim 1, wherein said effective rate is not more than about 30.0 kGy/hour.

5 23. The method according to claim 1, wherein
said biological material is maintained in a low oxygen
atmosphere.

24. The method according to claim 23, wherein said biological material is maintained in an argon atmosphere.

10 25. The method according to any one of claims
1-24, wherein said residual solvent content is reduced by
lyophilization.

26. The method according to claim 25, wherein said residual solvent content is less than about 2.0%.

15 27. The method according to claim 25, wherein
said residual solvent content is less than about 1.0%.

28. The method according to claim 25, wherein said residual solvent content is less than about 0.5%.

29. The method according to any one of claims 20 1-24 and 26-28, wherein at least one sensitizer is added to said biological material prior to step (ii).

30. A method for sterilizing a biological material that is sensitive to ionizing radiation, said method comprising:

25 (1) adding to a biological material at least one stabilizer in an amount effective to protect said biological material from said ionizing radiation; and

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(ii) irradiating said biological material with a suitable ionizing radiation at an effective rate for a time effective to sterilize said biological material.

31. The method according to claim 30, wherein said at least one stabilizer is an antioxidant.

32. The method according to claim 30, wherein said at least one stabilizer is a free radical scavenger.

33. The method according to claim 30, wherein said at least one stabilizer is selected from the group consisting of: ascorbic acid or a salt or ester thereof, glutathione, tocopherol, 6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid, rutin and other flavanoids.

34. A method for sterilizing a biological material that is sensitive to ionizing radiation, said method comprising:

(i) reducing the residual moisture content of a biological material to a level effective to protect said biological material from said ionizing radiation;

(ii) adding to said biological material at least one stabilizer in an amount effective to protect said biological material from said ionizing radiation; and

(iii) irradiating said biological material with a suitable ionizing radiation at an effective rate for a time effective to sterilize said biological material.

35. A method for sterilizing a biological material that is sensitive to ionizing radiation, said method comprising:

(i) adding to a biological material at least one stabilizer in an amount effective to protect said biological material from said ionizing radiation;

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(ii) reducing the residual moisture content of said biological material to a level effective to protect said biological material from said ionizing radiation; and

(iii) irradiating said biological material with a
5 suitable ionizing radiation at an effective rate for a time effective to sterilize said biological material.

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